

**UNITED STATES DEPARTMENT OF COMMERCE****Patent and Trademark Office**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/479,245 01/07/00 KISHI

E 684.2954

005514 WM02/1010
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EXAMINER

LAO, L

ART UNIT

PAPER NUMBER

2673 *[Handwritten signature]*

DATE MAILED: 10/10/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks*[Handwritten signature]*

Office Action Summary

Application No.	091479, 245	Applicant(s)	Etsuro Kishi et al
Examiner	LAO, LUN-YI	Group Art Unit	2673

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- Responsive to communication(s) filed on _____.
- This action is **FINAL**.
- Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

Claim(s) 1 - 12 is/are pending in the application.

Of the above claim(s) _____ is/are withdrawn from consideration.

Claim(s) _____ is/are allowed.

Claim(s) 1 - 12 is/are rejected.

Claim(s) _____ is/are objected to.

Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- The proposed drawing correction, filed on _____ is approved disapproved.
- The drawing(s) filed on _____ is/are objected to by the Examiner.
- The specification is objected to by the Examiner.
- The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- All Some* None of the CERTIFIED copies of the priority documents have been received.
- received in Application No. (Series Code/Serial Number) _____.
- received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

Attachment(s)

Information Disclosure Statement(s), PTO-1449, Paper No(s). 4 Interview Summary, PTO-413

Notice of Reference(s) Cited, PTO-892 Notice of Informal Patent Application, PTO-152

Notice of Draftsperson's Patent Drawing Review, PTO-948 Other _____

Office Action Summary

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

2. Claims 1, 3, 5, 7-9 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Ota(3,792,308).

As to claims 1, 5, 7-9 and 11, Ota teaches an electrophoretic display device comprising two electrodes(8, 9); fixing surfaces each associated with one of the two electrodes or charged films(8,9); an electrophoretic layer(suspension layer, 2) disposed in a cell and having an insulating liquid(7) and a colored charged particles disposed in the electrophoretic layer(suspension layer, 2) and voltage supply means(10) for applying a voltage between the electrodes(8,9)(see figures 1a-1c; column 2, lines 45-68; column 3, lines 1-25; column 6, lines 67-68 and column 7, lines 1-23). When a voltage is applied between the electrodes(8,9), the colored charged particles(6) is provided with an adhesive layer(43) allowing repetitive attachment thereto and separation

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therefrom of the color charged particles(6)(see figures 1a-1c, 11; column 6, lines 67-68; column 7, lines 1-23 and column 17, lines 15-33).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ota(3,792,308) in view of Albert et al(6,172,798).

Ota fails to place two electrodes(8,9) on a same plane so to allow the colored charged particles moving in an horizontal direction.

Albert et al teach an electrophoretic display having two electrodes(30, 40) mounted on the same plane(an horizontal plane)(see figures 1A, 1B and 3A-3D). When a voltage is applied to the two electrodes(30, 40), partials(50) are moving in an horizontal direction(see figures 1A, 1B and column 9, lines 27-61). It would have been obvious to have modified Ota with the teaching of Albert et al, since such a modification would have involved a mere changed in location of an

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electrodes and a changed location of an electrodes is generally recognized as being within the level of ordinary skill in the art.

5. Claims 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ota(3,792,308) in view of Albert et al(6,067,185).

Ota fails to disclose the insulating liquid has a volumetric resistivity of at least 10^{12} ohm.com.

Albert et al teach an electrophoretic display having an insulating liquid(17) with a volumetric resistivity about 10^{15} ohm.cm.(see figure 1 and column 15, lines 45-53). It would have been obvious to have modified Ota with the teaching of Albert et al, since displays of Ota and Albert et al both have insulating liquid and Albert's insulating liquid with 10^{15} ohm.cm. should be suitable for Ota's electrophoretic display.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ota(3,792,308) in view of Iijima et al(5,587,264).

Ota teaches an adhesive layer having a polymer(resin or polystyrol)(see figure 11 and column 11, lines 21-24). Ota fails to disclose the layer have a glass transition temperature of -35°C to $+35^{\circ}\text{C}$.

Iijima et al teach a display having a layer(resin) made of a polymer having low glass transition temperature(see column 17, lines 25-68 and column 18, lines 1-38). It would have been obvious to have modified Ota with the teaching of Iijima et al, since the layers of Ota and Iijima et al made of same material(polymer).

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Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ota teaches an electrophoretic display having a suspension layer disposed between a pair of electrodes.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lun-yi, Lao whose telephone number is (703) 305-4873.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala, can be reached at (703) 305-4938.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

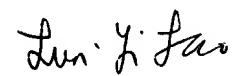
Any inquiry of a general nature or relating to the status of this application or proceeding

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should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

September 28, 2001

Lun-yi Lao



Lun-Yi Lao
Primary Examiner